

**REMARKS**

Reconsideration and allowance are respectfully requested in the subject application.

Claims 6 and 8-10 are all the claims pending in the application. Applicant respectfully submits that the pending claims define patentable subject matter.

**I. Preliminary Matters**

Claim 8 is objected to because of a typographical error with regard to the dependency.

By this Amendment, Applicant has amended claim 8 to be dependent on claim 6. Accordingly, the Examiner is requested to withdraw the objection to claim 8.

Claims 6 and 8-10 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Examiner asserts that the term “raw” (claims 6 and 10) “is a broad description that lacks substantial features hence the claims are indefinite.” Applicant respectfully submits that the rejection is improper.

Independent claims 6 and 10 recite “a surface discharge processing material made of a surface reforming material or a raw material ....” The term “raw material” is well defined and known to those skilled in the art. For example, Webster’s Encyclopedic Unabridged Dictionary of the English Language (1996) defines “raw material” as “material before being processed or manufactured into a final form”. Thus, Applicant submits that claims 6 and 8-10 are both definite and entirely proper under 35 U.S.C. § 112 since those of ordinary skill in the art can easily ascertain the metes and bounds of the present invention from the claims.<sup>1</sup>

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<sup>1</sup> The first sentence of the second paragraph of 35 U.S.C. § 112 requires only that claims “set out and circumscribe a particular area with a reasonable degree of precision and particularity.” In the absence of evidence to the contrary, what the claim defines is what the applicant regards as his invention. If those skilled in the art can tell whether any particular embodiment is within the scope of a claim, the claim fulfills its purpose as a definition. See *In re Miller*, 169 U.S.P.Q. 597 (CCPA 1971).

Accordingly, the Examiner is requested to withdraw the § 112 rejection.

## **II. Prior Art Rejections**

Claims 6, 8 and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Inoue '655 (USP 4,488, 655) in view of Bonga (USP 4,645,894) and Inoue '133 (USP 4,506,133).

Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Inoue '655 in view of Bonga and Inoue '133 or Inoue '489 (USP 3,727,489). Applicant respectfully traverses the rejections.

### **A. Rejection of claims 6, 8 and 9**

With regard to independent claim 6, the Examiner asserts that Inoue '655 discloses all of the features of the claimed apparatus except for a wire electrode feeder and a reforming layer on the electrode, which the Examiner maintains is disclosed by Bonga and Inoue '133.

Applicant submits that independent claim 6 would not have been rendered obvious in view of the Examiner's proposed combination of Inoue '655, Bonga and Inoue '133.

Claim 6 recites in part:

said wire electrode is composed of a core wire made of ductile material, and a surface discharge processing material made of a surface reforming material or a raw material therefore adhered to said core wire, wherein a recess is formed in said core wire, and said surface discharge processing material is adhered to the recess.

As noted by the Examiner, Inoue '655 discloses a wire electrode which is formed with a rugged peripheral surface along a length thereof. Inoue '655 teaches various ways of producing the rugged peripheral surface, e.g., forming projections and recesses in a pattern on a cylindrical wire surface by electroless plating, chemical plating, electroplating, spark deposition, powder

spraying, plasma-spraying, sintering, sandblasting or knurling; twisting together a group of small diameter wires; winding a small diameter wire on a large diameter core wire; and forming a spiral groove in the smooth surface of a wire by means of a rotating die.<sup>2</sup>

However, Inoue '655 does not teach or suggest "a recess is formed in said core wire, and said surface discharge processing material is adhered to the recess", as required by claim 6. That is, nowhere does Inoue '655 teach or suggest surface discharge processing material is adhered to the rugged peripheral surface (i.e., projections and recesses) of the wire. Instead, Inoue '655 teaches that the smooth peripheral surface of the wire is made rugged by various methods.

Further, neither Bonga nor Inoue '133 disclose this feature of claim 6 which is missing from Inoue '655.

Accordingly, Applicant respectfully submits that independent claim 6, as well as dependent claims 8 and 9, should be allowable because the cited references, alone or in combination, do not teach or suggest all of the features of the claims.

#### **B. Rejection of Claim 10**

With regard to independent claim 10, the Examiner asserts that Inoue '655 discloses all of the features of the claimed apparatus except for "the use of a wire feeder (changer) or machining and deposition in combination, which the Examiner maintains is disclosed by the secondary references.

By this Amendment, Applicant has amended claim 10 to recites in part:

a second wire electrode for surface discharge processing composed of a core wire made of ductile material, and a surface discharge processing material

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<sup>2</sup> See Inoue '655 at FIGs. 3-7; and column 7, line 66 - column 8, line 32.

made of a surface reforming material or a raw material therefore adhered to said core wire, wherein a recess is formed in said core wire, and said surface discharge processing material is adhered to the recess.

Thus, Applicant respectfully submits that claim 10 should be allowable for the same reasons discussed above with regard to claim 6.

### III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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**23373**

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